Highway Maintenance Plan





South Tyneside Council

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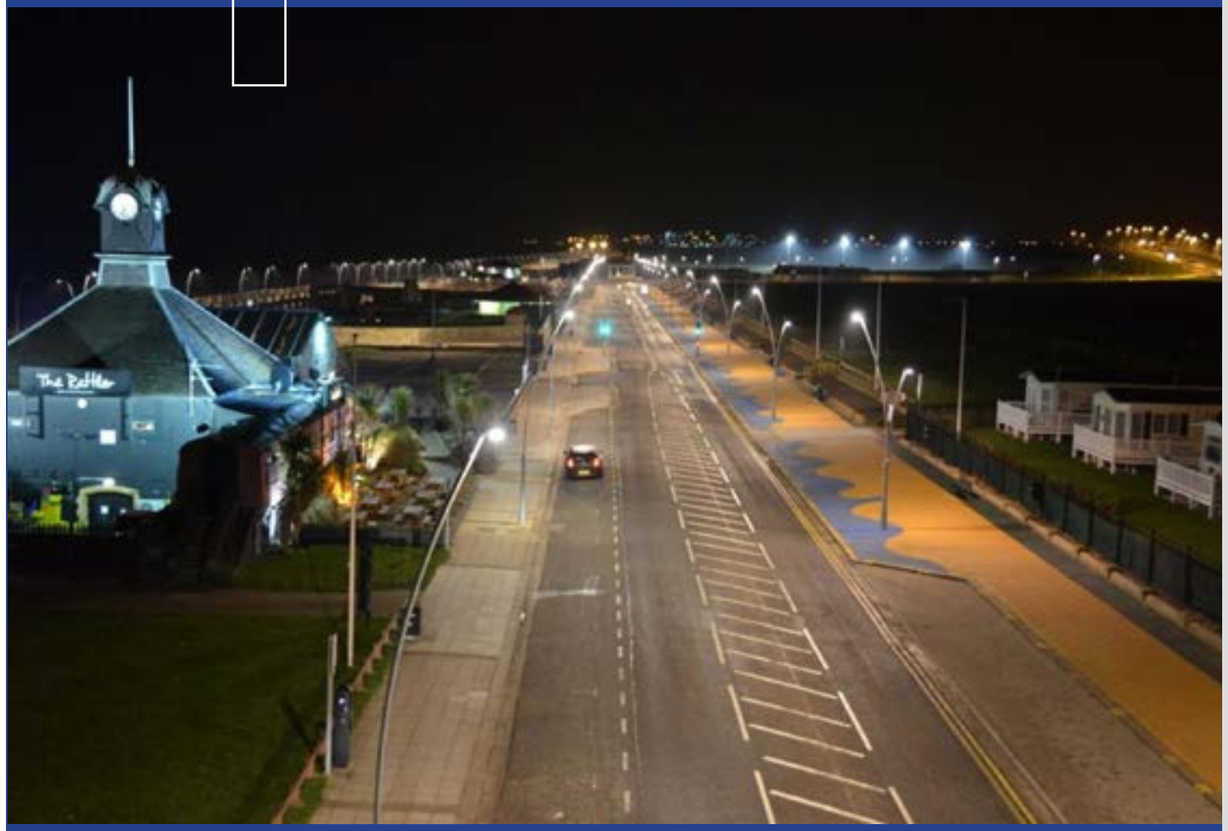

1.1 Introduction

The South Tyneside highway and infrastructure network represents the single most valuable asset for which the council has responsibility for.

At the direction of central government, the DfT commissioned and worked with the UK Roads Liaison Group (UKRLG) and the highway sector to review three national codes of practice: 'Well-maintained Highways', 'Management of Highway Structures' and 'Well-lit Highways'.

The aim was to enable local authorities to maintain their highways and infrastructure in the most effective and efficient way by strengthening guidance on what is known as 'risk based' highway maintenance. A risk based approach to asset management of highway infrastructure assets takes account of risks to an asset as well as its condition. The review resulted in the publication in October 2016 of 'Well-managed Highway Infrastructure, A Code of Practice'.

This Highway Maintenance Plan (HMP) details the maintenance procedures for day to day management and delivery of the highway maintenance service. It forms part of the suite of documents used by the Council to manage its highways assets. It is supplementary to the Highway Asset Management Framework (HAMF) and the Highway Asset Management Plan (HAMP).

1.2 Scope of our Highway Maintenance Plan

This plan covers highway infrastructure assets in the ownership of South Tyneside Council.

The infrastructure assets are:

- Adopted carriageways
- Adopted footways
- Highway drainage
- Cycle paths
- Public rights of way (PROW)
- Street furniture
- Traffic calming
- Road markings
- Trees and green spaces

The following assets are managed by external organisations so are not included within this HMP:

- Street lighting stock is managed through a long term PFI contract;
- traffic signals are managed by Regional Traffic Signals Group; and
- bridges and structures are managed by Northumberland County Council.

1.3 A Summary of the 36 Code of Practice Recommendations

Recommendation 1 – Use of the Code

This Code – in conjunction with the UKRLG Highway Infrastructure Asset Management Guidance – should be used as the starting point against which to develop, review and formally approve highway infrastructure maintenance policy and to identify and formally approve the nature and extent of any variations.

Recommendation 2 – Asset Management Framework

An Asset Management Framework should be developed and endorsed by senior decision makers. All activities outlined in the Framework should be documented.

Recommendation 3 – Asset Management Policy and Strategy

An asset management policy and a strategy should be developed and published. These should align with the corporate vision and demonstrate the contribution asset management makes towards achieving this vision.

Recommendation 4 – Engaging and Communicating With Stakeholders

Relevant information should be actively communicated through engagement with relevant stakeholders in setting requirements, making decisions and reporting performance.

Recommendation 5 – Consistency with Other Authorities

To ensure that users' reasonable expectations for consistency are taken into account, the approach of other local and strategic highway and transport authorities, especially those with integrated or adjoining networks, should be considered when developing highway infrastructure maintenance policies.

Recommendation 6– An Integrated Network

The highway network should be considered as an integrated set of assets when developing highway infrastructure maintenance policies.

Recommendation 7 – Risk Based Approach

A risk based approach should be adopted for all aspects of highway infrastructure maintenance; including setting levels of service, inspections, responses, resilience, priorities and programmes.

Recommendation 8 – Information Management

Information to support a risk based approach to highway maintenance should be collected, managed and made available in ways that are sustainable, secure, meet any statutory obligations, and, where appropriate, facilitate transparency for network users.

Recommendation 9 – Network Inventory

A detailed inventory or register of highway assets, together with information on their scale, nature and use, should be maintained. The nature and extent of inventory collected should be fit for purpose and meet business needs. Where data or information held is considered sensitive, this should be managed in a security-minded way.

Recommendation 10 – Asset Data Management

The quality, currency, appropriateness and completeness of all data supporting asset management should be regularly reviewed. An asset register should be maintained that stores, manages and reports all relevant asset data.

Recommendation 11 – Asset Management Systems

Asset management systems should be sustainable and able to support the information required to enable asset management. Systems should be accessible to relevant staff and, where appropriate, support the provision of information for stakeholders.

Recommendation 12 – Network Hierarchy

A network hierarchy, or a series of related hierarchies, should be defined which include all elements of the highway network, including carriageways, footways, cycle routes, structures, lighting and rights of way. The hierarchy should take into account current and expected use, resilience, and local economic and social factors such as industry, schools, hospitals and similar, as well as the desirability of continuity and of a consistent approach for walking and cycling.

Recommendation 13 – Whole Life / Designing for Maintenance

Authorities should take whole life costs into consideration when assessing options for maintenance, new and improved highway schemes. The future maintenance costs of such new infrastructure are therefore a prime consideration.

Recommendation 14 – Risk Management

The management of current and future risks associated with assets should be embedded within the approach to asset management. Strategic, tactical and operational risks should be included as should appropriate mitigation measures.

Recommendation 15 – Competencies and Training

The appropriate competency required for asset management should be identified, and training should provided where necessary.

Recommendation 16 – Inspections

A risk based inspection regime, including regular safety inspections, should be developed and implemented for all highway assets.

Recommendation 17 – Condition Survey

An asset condition survey regime, based on asset management needs and any statutory reporting requirements, should be developed and implemented.

Recommendation 18 – Management System and Claims

Records should be kept of all activities, particularly safety and other inspections, including the time and nature of any response, and procedures established. This will ensure efficient management of claims whilst protecting the authority from unjustified or fraudulent claims.

Recommendation 19 – Defect Repair

A risk based defect repair regime should be developed and implemented for all highway assets.

Recommendation 20 – Resilient Network

Within the highway network hierarchy a ‘Resilient Network’ should be identified, to which priority is given through maintenance and other measures to maintain economic activity and access to key services during extreme weather.

Recommendation 21 – Climate Change Adaptation

The effects of extreme weather events on highway infrastructure assets should be risk assessed and ways to mitigate the impacts of the highest risks identified.

Recommendation 22 – Drainage Maintenance

Drainage assets should be maintained in good working order to reduce the threat and scale of flooding. Particular attention should be paid to locations known to be prone to problems, so that drainage systems operate close to their designed efficiency.

Recommendation 23 – Civil Emergencies and Severe Weather Emergencies Plans

The role and responsibilities of the Highway Authority in responding to civil emergencies should be defined in the authority’s Civil Emergency Plan. A Severe Weather Emergencies Plan should also be established in consultation with others, including emergency services, relevant authorities and agencies. It should include operational, resource and contingency plans and procedures to enable timely and effective action by the Highway Authority to mitigate the effects of severe weather on the network and provide the best practicable service in the circumstances.

Recommendation 24 – Communications

Severe Weather and Civil Emergencies Plans should incorporate a communications plan to ensure that information including weather and flood forecasts are received through agreed channels, and that information is disseminated to highway users through a range of media.

Recommendation 25 – Learning from Events

Severe Weather and Civil Emergencies Plans should be regularly rehearsed and refined as necessary. The effectiveness of the Plans should be reviewed after actual events and the learning used to develop them as necessary.

Recommendation 26 – Performance Management Framework

A performance management framework should be developed that is clear and accessible to stakeholders as appropriate and supports the asset management strategy.

Recommendation 27 – Performance Monitoring

The performance of the Asset Management Framework should be monitored and reported. It should be reviewed regularly by senior decision makers and when appropriate, improvement actions should be taken.

Recommendation 28 – Financial Plans

Financial plans should be prepared for all highway maintenance activities covering short, medium and long term time horizons.

Recommendation 29 – Lifecycle Plans

Lifecycle planning principles should be used to review the level of funding, support investment decisions and substantiate the need for appropriate and sustainable long- term investment.

Recommendation 30 – Cross Asset Priorities

In developing priorities and programmes, consideration should be given to prioritising across asset groups as well as within them.

Recommendation 31 – Works Programming

A prioritised forward works programme for a rolling period of three to five years should be developed and updated regularly.

Recommendation 32 – Carbon

The impact of highway infrastructure maintenance activities in terms of whole life carbon costs should be taken into account when determining appropriate interventions, materials and treatments.

Recommendation 33 – Consistency with Character

Determination of materials, products and treatments for the highway network should take into account the character of the area as well as factoring in whole life costing and sustainability. The materials, products and treatments used for highway maintenance should meet requirements for effectiveness and durability.

Recommendation 34 – Heritage Assets

Authorities should identify a schedule of listed structures, ancient monuments and other relevant assets and work with relevant organisations to ensure that maintenance reflects planning requirements.

Recommendation 35 – Environmental Impact, Nature Conservation and Biodiversity

Materials, products and treatments for highway infrastructure maintenance should be appraised for environmental impact and for wider issues of sustainability. Highway verges, trees and landscaped areas should be managed with regard to their nature conservation value and biodiversity principles as well as whole-life costing, highway safety and serviceability.

Recommendation 36 – Minimising Clutter

Opportunities to simplify signs and other street furniture and to remove redundant items should be taken into account when planning highway infrastructure maintenance activities.

Details of how South Tyneside Council have complied with the recommendations can be found in Appendix A.

2 Highway Maintenance Procedures

2.1 Introduction

This section of this document sets out the Council's inspection, condition survey, reactive and routine maintenance service levels.

2.2 Legal framework

The Highways Act 1980 sets out the main duties of Highway Authorities in England and Wales. In particular, Section 41 imposes a duty to maintain highways maintainable at public expense, and almost all claims against authorities relating to highway functions arise from the alleged breach of this section.

Section 58 provides for a defence against action relating to alleged failure to maintain – on grounds that the authority has taken such care as in all the circumstances was reasonably required to secure that the part of the highway in question was not dangerous for traffic. Compliance with the code of practice is an important element in demonstrating a section 58 defence.

2.3 Maintenance Inventory and Hierarchy

The essential elements of an effective highway maintenance strategy are:

- A relevant and up to date inventory
- A defined maintenance hierarchy for roads and footpaths
- Clear policies objectives and standards for inspections and maintenance

2.4 Inventories

The collection and updating of information on the Council's highway assets is central to the successful implementation and future development of the Highway Asset Management Plan (HAMP) and this Highway Maintenance Plan (HMP). Accurate data is an essential element in supporting effective decision making and in ensuring the correct priorities are identified. South Tyneside's asset information strategy can be found within the Highway Asset Management Framework (HAMF).

2.5 Network Hierarchies

The network maintenance hierarchy is the foundation of the system of routine safety inspection. The maintenance hierarchy adopted by the Council reflects the needs, priorities, strategic importance and actual use of each road in the network. The dynamic nature of the network is taken into account as the hierarchy is regularly reviewed to reflect changes in street characteristics and use. A full review of the network has been undertaken.

The network maintenance hierarchy currently serves to inform the frequency and method of safety inspection and is also used as a weighting factor to inform the response times for routine or reactive maintenance.

2.6 Types of Inspections

The establishment of an effective inspection regime incorporating inspection frequencies, items to be recorded and nature of response supported by an assessment procedure based on risk probability is the key element in addressing the fundamental objectives of our highway maintenance plan:

- Network safety
- Network serviceability
- Network sustainability

The inspection regime is applied systematically and consistently, and a standardised comprehensive recording system is adopted. This allows for inspection records to be digitally recorded along with any subsequent works orders which are critical for dealing with third party claims and repairs management.

Safety Inspections

Safety inspections are designed to identify all defects likely to create danger or serious inconvenience to users of the network or the wider community. The Highways Act 1980 Section 41 requires the Council to maintain the highways for which they are responsible. Section 58 of the act provides a statutory defence to a claim made for breach of the Section 41 duty to maintain. This document associated provides a framework for South Tyneside Council to use that defence.

South Tyneside Council's safety inspection regime forms a key part of the Council's strategy for managing liabilities and risk. It comprises the following elements which are explained in detail in the Highways Safety Inspection Manual located in Appendix B:

- Network hierarchy
- Frequency and mode of inspections
- Defect investigatory levels (i.e. degree of deficiency)
- Repair and response times

Service Inspections

We define service inspections as a combination of safety and condition inspections. Individual asset service inspections will be determined by applying a risk based approach to identify if a supplementary safety inspection is required.

On occasions there may be a requirement to carry out a bespoke service / condition inspection; however these will be determined on an ad hoc basis.

Condition Surveys

Condition surveys are undertaken to ascertain information on the nature and severity of carriageway deterioration in order to determine the most appropriate maintenance treatment and hereby ensuring value for money. Details of the frequency and type of condition surveys are provided in the Information Strategy of the (HAMF) document.

Skidding Resistance Surveys

The skid resistance strategy and policy including the inspection and assessment methods are provided in detail in section is available to view at Appendix C.

Highway Drainage Systems

The inspections and maintenance of highway drainage is documented in the Highway Drainage Strategy. This document can be found at appendix D.

Inspections of Highway Trees

South Tyneside Council has a Tree and Woodland Policy which can be viewed on the council's website.

Within the Greenspace team there are tree inspectors who undertake the regular inspections of the Council's tree stock. The highways inspectors have undertaken tree inspection training specifically designed for highways inspectors. They identify dead and diseased trees during the course of their safety inspections and these are referred to the council's tree inspector for further action / investigation. Likewise overgrown hedges and trees are identified and residents are requested to cut back overgrown vegetation.

Inspections will only be completed so far as can be seen without trespassing.

Inspections of Public Rights of Way

Safety inspections are undertaken by the PROW Officer. A separate review of this network has been undertaken to inform the frequency of the inspections and investigatory levels.

Inspections for Network Integrity

The maintenance of the network infrastructure is the responsibility of the highway asset management team, whereas network efficiency and the management of activities on the highway are managed by the Network/Traffic Manager. The procedures maintaining the network infrastructure as contained within this maintenance plan. The procedures for managing the network efficiency are documented in the Network Management Plan.

Inspections for New Developments

Developers may request for the highway within a new development to be adopted and then maintained by the Council under section 38 of the Highways Act 1980.

Developers may request the existing highway to be modified to facilitate a new development under section 278 of the Highways Act 1980.

The Council requires that the new developments and modifications are designed and constructed in accordance with the Highways Design Guide for Residential Developments and inspected at various stages before being formally adopted.

Inspections for Regulatory Purposes

A significant element of highway maintenance comprises regulation and enforcement of activities on or affecting the highway. The most significant of these for our authority involves responsibilities under the New Roads and Street Works Act 1991 (NRSWA). These matters are incorporated within our statutory duty for network management imposed by the Traffic Management Act 2004 and are the responsibility of our Network/Traffic Manager. These responsibilities are outlined in our Network Management Plan.

There are other general regulatory and enforceable activities under the Highways Act 1980 which there are extensive powers within the Highway Act to regulate various activities which occur on the highway. These will be dealt with on an ad hoc basis.

2.7 Competence

South Tyneside Council has developed a competency framework aligned with the principles of ISO55000. The key roles associated with this competency framework are responsible for the delivery of the codes of practice, Well-managed Highway Infrastructure, completion of the Incentive Fund highway assessment questionnaire and managing highway assets. This forms part of the Employee Performance Management process and is held internally. All Highways Inspectors are registered on the Highways Inspector Register complied by the Institute if Highway Engineers.

2.8 Programming and priorities - Highways

The process to develop a works programme for asset maintenance comprises the identification, prioritisation, optimisation, programming and delivery of individual schemes. It should meet the annual budgets that have been developed by the authority, ideally with the support of lifecycle planning process described in the HAMP.

The process for identifying candidate schemes and developing a programme of works is described in the following paragraphs and summarised in the diagram below.

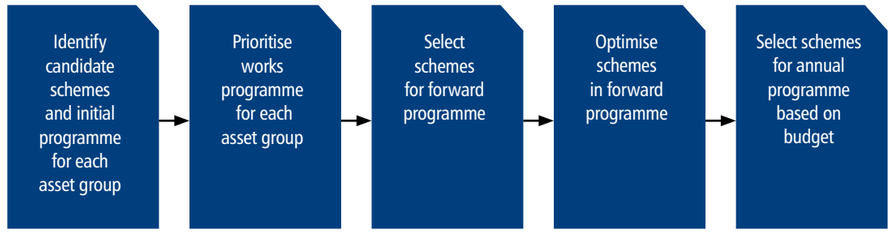

Figure 1

2.9 Balancing Priorities by Type

The broad priorities for the respective types of highway maintenance will largely be determined by the outcome of safety and service inspections and condition surveys, assessed against local risks and policies specified by the authority in the light of this Code. In general it will be important to establish priorities and programmes for each of the following:

- Emergency / reactive maintenance – attending to defects and other safety matters that require urgent action arising from inspections or user information;
- planned maintenance – attending to defects and other less urgent matters that may benefit from further planning leading to permanent repairs;
- programmed maintenance – providing lifecycle / road condition based work streams;
- routine maintenance – providing locally defined levels of service;
- regulatory functions – regulating occupation, interference or obstruction of the network; and
- Winter Service – providing locally defined levels of service of salting and clearance of ice and snow.

The determination of priorities and programmes for items within the categories of regulatory functions and Winter Service will tend not to require any special consideration and will largely arise out of the design of the services.

2.10 Value Management and Value Engineering

The first stage of our value management process is the determination of the parameters set in our asset management software system, Horizons. This information is detailed within the life cycle planning section of the HAMP.

The above will generate an initial programme list for consideration. Further refinement will be completed by applying the principles of asset management, value engineering, consultation with stakeholders and network management considerations.

The final programme of schemes for all asset groups will be determined holistically and by applying the objectives of the HAMP.

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www southtyneside.gov.uk

0191 427 1717

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